

LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO

Report Number: P990627

Luminaire Tested: **ML2ALSFL9FS1E-TIR1D40FL-TL2SDSL-550LM-2700K**

Issue Date: 5/13/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
Report Number: P990627
Test Lab: Cooper Lighting Solutions
Issue Date: 5/13/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: ML2ALSFL9FS1E-TIR1D40FL-TL2SDSL-550LM-2700K
Description: 2IN SQUARE ML FLEX ADJUSTABLE, SELECTABLE CCT, WITH 40D TIR,
METALLIC SILVER TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

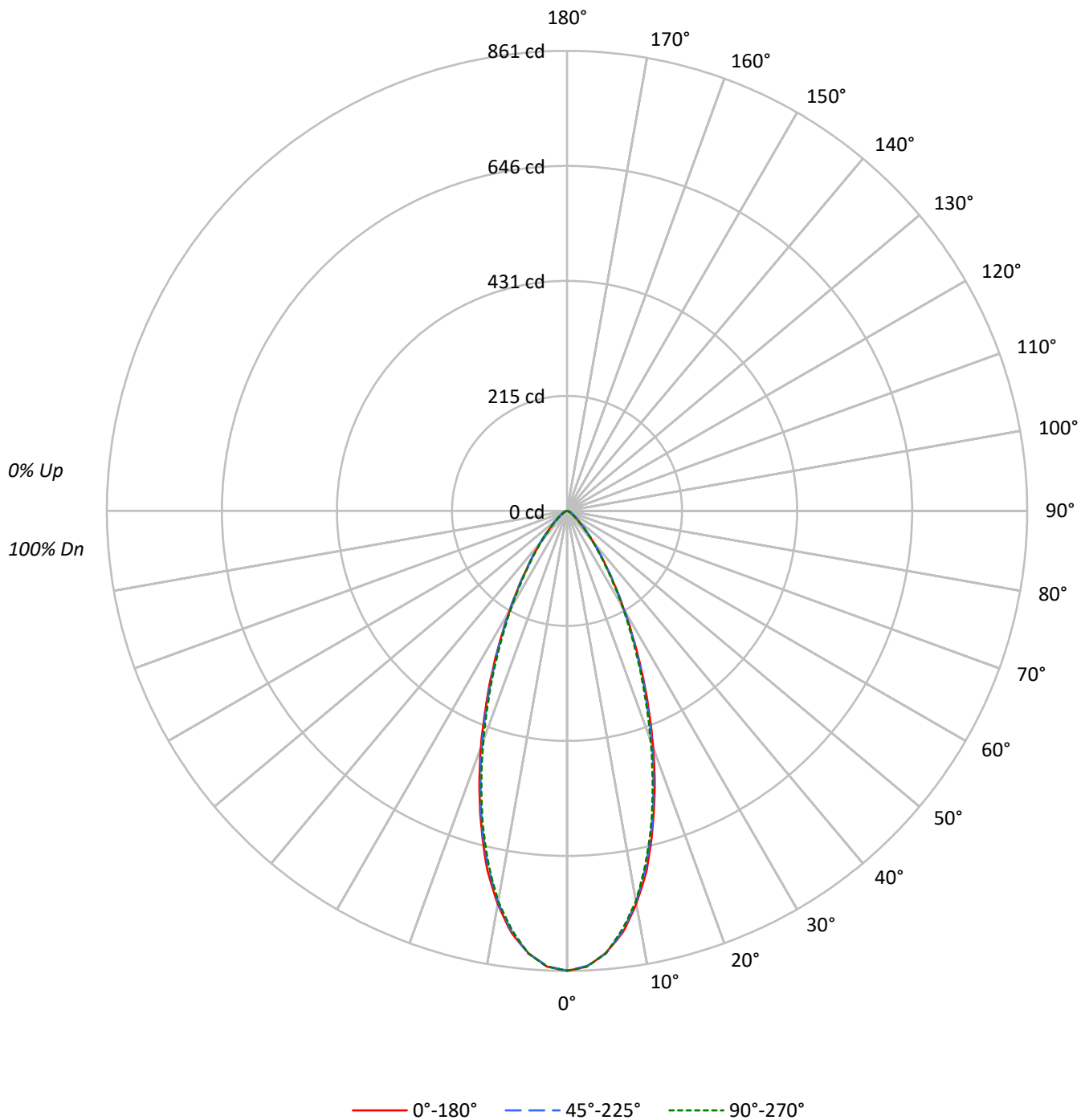
Lumens per Lamp: N/A
Luminaire Lumens: 537.5 lumens
Efficiency: N/A
Efficacy: 70.7 lumens/watt
Spacing Criteria (0/90/45): 0.68 / 0.67 / 0.69
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 7.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	GONIO 1 IN0055	4/22/2021	10/22/2021
Power Meter	XITRON 2801 IN0197	12/1/2020	12/1/2021
AC Power Source	CHROMA 61505 IN0196	12/1/2020	12/1/2021
DC Power Supply	AGILENT E3634A IN0198	11/30/2020	11/30/2021
Room Thermometer	ONSET IN0143	12/1/2020	12/1/2021

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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	114	111	108	106	111	109	106	104	105	103	101		101	99	98		97
2	108	103	99	96	106	101	98	95	98	95	93		95	93	91		92
3	103	96	91	87	101	95	90	87	92	88	85		90	87	84		88
4	98	90	85	80	96	89	84	80	87	82	79		85	81	78		83
5	93	85	79	75	91	84	78	74	82	77	74		80	76	73		79
6	88	80	74	70	87	79	73	69	77	73	69		76	72	69		75
7	84	75	69	65	83	75	69	65	73	68	65		72	68	64		71
8	81	71	66	62	79	71	65	61	70	65	61		69	64	61		68
9	77	68	62	58	76	67	62	58	66	61	58		65	61	58		65
10	74	64	59	55	73	64	59	55	63	58	55		62	58	55		62

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	83371	83371	83371
5°	80762	80860	80860
10°	73433	73138	72941
15°	61921	61520	61018
20°	48588	47969	47144
25°	35188	34654	34012
30°	23838	23838	23279
35°	15268	15504	14795
40°	9624	9877	9232
45°	5891	6302	5754
50°	3768	4220	3617
55°	2533	2871	2365
60°	1938	2131	1744
65°	1605	1834	1375
70°	1133	1416	1133
75°	749	1123	749
80°	0	558	0
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.5	14.2
10°-20°	168.7	31.4
20°-30°	149.1	27.7
30°-40°	83.0	15.4
40°-50°	35.8	6.7
50°-60°	14.9	2.8
60°-70°	7.0	1.3
70°-80°	2.4	0.4
80°-90°	0.1	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	394.3	73.4
0°-40°	477.4	88.8
0°-60°	528.0	98.2
0°-90°	537.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	537.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	861	861	861	861	861	
5°	830	832	832	830	832	77
15°	617	615	613	609	608	170
25°	329	329	324	321	318	151
35°	129	130	131	128	125	83
45°	43	45	46	44	42	35
55°	15	16	17	16	14	14
65°	7	7	8	7	6	7
75°	2	2	3	2	2	2
85°	0	0	0	0	0	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	860.6	860.6	860.6	860.6	860.6
2.5°	853.6	853.6	852.6	854.6	853.6
5°	830.5	831.5	831.5	830.5	831.5
7.5°	796.5	795.5	793.5	792.5	790.5
10°	746.5	745.5	743.5	743.5	741.5
12.5°	688.5	686.5	681.4	678.4	677.4
15°	617.4	615.4	613.4	609.4	608.4
17.5°	545.4	542.4	538.4	535.4	532.4
20°	471.3	469.3	465.3	459.3	457.3
22.5°	397.3	395.3	391.3	386.3	384.3
25°	329.2	329.2	324.2	321.2	318.2
27.5°	267.2	269.2	264.2	261.2	258.2
30°	213.1	214.1	213.1	209.1	208.1
32.5°	168.1	169.1	168.1	164.1	162.1
35°	129.1	130.1	131.1	128.1	125.1
37.5°	100.1	101.1	101.1	98.1	96.1
40°	76.1	77.1	78.1	75.0	73.0
42.5°	58.0	59.0	60.0	57.0	55.0
45°	43.0	45.0	46.0	44.0	42.0
47.5°	33.0	34.0	36.0	33.0	31.0
50°	25.0	26.0	28.0	26.0	24.0
52.5°	19.0	21.0	22.0	20.0	18.0
55°	15.0	16.0	17.0	16.0	14.0
57.5°	12.0	13.0	14.0	12.0	11.0
60°	10.0	10.0	11.0	10.0	9.0
62.5°	8.0	8.0	9.0	8.0	8.0
65°	7.0	7.0	8.0	7.0	6.0
67.5°	5.0	6.0	6.0	6.0	5.0
70°	4.0	4.0	5.0	5.0	4.0
72.5°	3.0	3.0	4.0	3.0	3.0
75°	2.0	2.0	3.0	2.0	2.0
77.5°	1.0	1.0	1.0	1.0	1.0
80°	0.0	0.0	1.0	1.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)